

## **Appendix A – Sections and Stipulations of the Grant of Right-of-Way Measured as a Result of Construction Oversight**

### Principle (3)

Permittees shall manage, supervise and implement the construction, operation, maintenance and termination of the Pipeline System in accordance with sound engineering practice, to the extent allowed by the state of the art and the development of technology. In the exercise of these functions, Permittees consent and shall submit to such review, inspection and compliance procedures relating to construction, operation, maintenance and termination of the Pipeline System as are Provided for in this Agreement and other applicable authorizations. The Parties intend that this Agreement shall not in any way derogate from or be construed as being inconsistent with the provisions of Section 203(d) of the Trans-Alaska Pipeline Authorization Act, 87 Stat. 585 (1973), relating to the National Environmental Policy Act, 83 Stat. 852, 42 U.S.C. § 4321 *et Seg.*

### Section 9 – Construction Plans and Quality Assurance Program

- A. Permittees shall submit construction (including design) plans, a quality assurance program, and other related documents as deemed necessary by the Authorized Officer, for review and approval prior to his issuing Notices to Proceed.
- B. The quality assurance program shall be comprehensive and designed to assure that the environmental and technical Stipulations in this Agreement will be fully complied with throughout all phases of construction, operation, maintenance and termination of the Pipeline System.
- C. The following criteria shall be included in the quality assurance program, although Permittees are not limited to these criteria:
  - (1) Provide adequate and appropriate means and procedures for the detection and prompt abatement of any actual or potential condition that is susceptible to abatement by Permittees which arises out of, or could affect adversely, the construction, operation, maintenance or termination of all or any part of the Pipeline System and which at any time may cause or threaten to cause: (a) a hazard to the safety of workers or to public health or safety (including but not limited to personal injury or loss of life with respect to any person or persons) or (b) serious and irreparable harm or damage to the environment (including but not limited to areas of vegetation or timber, fish or other wildlife populations, or their habitats, or any other natural resource).
  - (2) Provide adequate and appropriate means and procedures for the repair and replacement of improved or tangible property and the rehabilitation of natural resources (including but not limited to revegetation, restocking fish or other wildlife populations and reestablishing their habitats) that shall be seriously damaged or destroyed if the immediate cause of the damage or destruction arises in connection with, or results from, the construction, operation, maintenance or termination of all or any part of the Pipeline System.

- (3) Provide for component and system quality through adequate quality control management and planning, and inspection and test procedures.
- (4) Assure that the selection of Permittees' contractors, subcontractors and contract purchases of materials and services are based upon the above quality control procedures.
- (5) Determine quality performance by conducting surveys and field inspections of all of the facilities of Permittees' contractors and subcontractors.
- (6) Maintain quality determination records on all of the above procedures to insure satisfactory data identification and retrieval.

#### Section 10 - Compliance With Notices To Proceed

All construction of the Pipeline System undertaken by Permittees shall comply in all respects with the provisions of Notice to Proceed that are issued by the Authorized Officer.

#### Section 16 – Laws and Regulations

A. Permittees, and each of them, shall comply) with all applicable Federal laws and regulations, existing or hereafter enacted or promulgated.

B. In any event, Permittees, and each of them, shall comply with: (1) all regulations hereafter promulgated to implement the Trans-Alaska Pipeline Authorization Act, and (2) all applicable regulations hereafter promulgated to implement Section 28 of the Mineral Leasing Act of 1920, as amended.

#### Stipulation 1.1.1.24 – Related Facilities

1.1.1.24. A. "Related Facilities" means those structures, devices, improvements, and sites, the substantially continuous use of which is necessary for the operation or maintenance of the Oil transportation pipeline, including:

- (1) line pipe and supporting structures;
- (2) pump stations, including associated buildings, heliports, structures, yards and fences;
- (3) valves and other control devices and structures housing them;
- (4) monitoring and communication devices, and structures housing them;
- (5) surge and storage tanks, and related containment structures;
- (6) bridges;
- (7) terminals, including associated buildings, heliports, structures, yards, docks, and fences;
- (8) a gas fuel line and electrical power lines necessary to serve the Pipeline;
- (9) retaining walls, berms, dikes, ditches, cuts and fills, including hydraulic control structures;
- (10) storage buildings and structures, and areas for storage of supplies and equipment;
- (11) administrative buildings;
- (12) cathodic protection devices;
- (13) mechanical refrigeration equipment; and
- (14) such other facilities as the Authorized Officer shall determine to be Related Facilities.

B. "Related Facilities" not authorized by this Agreement include roads and airports. Authorizations for such Related Facilities shall be given by other instruments.

C. "Related Facilities" does not mean those structures, devices, improvements, sites, facilities or areas, the use of which is temporary in nature such as those used only for

construction purposes. Among such are: temporary camps; temporary landing strips; temporary bridges; temporary Access Roads; temporary communications sites; temporary storage sites; disposal sites; and construction use areas.

### Stipulation 1.3 - Authorized Officer

1.3.1. For purposes of information and review, the Authorized Officer may call upon Permittees at any time to furnish any or all data related to construction, operation, maintenance and termination activities undertaken in connection with the Pipeline System.

1.3.2. The Authorized Officer may require Permittees to make such modification of the Pipeline System, without liability or expense to the United States, as he deems necessary to: protect or maintain stability of geologic materials; protect or maintain integrity of the Pipeline System; prevent serious and irreparable harm to the environment (including but not limited to fish or wildlife populations, or their habitats); or remove hazards to public health and safety.

### Stipulation 1.7 – Notices to Proceed

1.7.1. Permission to construct.

1.7.1.1. Permittees shall not initiate any construction of the Pipeline System without prior written permission of the Authorized Officer. Such permission shall be given solely by means of a written Notice to Proceed issued by the Authorized Officer. Each Notice to Proceed shall authorize construction only as therein expressly stated and only for the particular Construction Segment therein described.

1.7.1.2. The Authorized Officer shall issue a Notice to Proceed only when in his judgment the construction (including design) and operation proposals are in conformity with the provisions of these Stipulations.

1.7.1.3. By written notice, the Authorized Officer may revoke in whole or in part any Notice to Proceed which has been issued when in his judgment unforeseen conditions later arising require alterations in the Notice to Proceed in order to: protect or maintain stability of geologic materials; protect or maintain integrity of the Pipeline System; prevent serious and irreparable harm to the environment (including but not limited to fish or wildlife populations, or their habitats); or remove hazards to public health and safety.

1.7.1.4. Prior to submission of any Preliminary Designs or applications for any Notice to Proceed, Permittees and the Authorized Officer shall agree to a schedule for the time, scope and quantity of such submissions and applications. The purpose of such schedule is to assure that Permittees' submissions and applications shall be reasonable in scope, and filed in a reasonable time frame, insofar as the workload thereby imposed on the Authorized Officer is concerned. Submittal and applications shall be filed in accordance with said schedule, and the Authorized Officer may refuse to consider any that are not so filed. The schedule may be reviewed and revised from time to time as may be agreed upon by Permittees and Authorized Officer.

1.7.2. Preliminary Design Submissions

1.7.2.1. Prior to applying for a Notice to Proceed for any Construction Segment, Permittees shall submit the Preliminary Design for that Segment to the Authorized

Officer for approval. Where appropriate, each submission shall include the criteria which justify the selection of the Construction Modes. The Authorized Officer shall expeditiously review each submission and shall do so within thirty (30) days from the date of his receipt of the submission. The Authorized Officer may request additional information if he deems it necessary.

1.7.2.2. In appropriate cases, the Authorized Officer may waive the requirement that a Preliminary Design be submitted. In this circumstance, Permittees may proceed to apply for a Notice to Proceed in accordance with Stipulation 1.7.4.

#### 1.7.3. Summary Network Analysis Diagram

1.7.3.1. Prior to Final Design submissions, Permittees shall submit a summary network analysis diagram for the entire project to the Authorized Officer. The summary network analysis diagram shall be time-scaled and shall include all activities and contingencies which may reasonably be anticipated in connection with the project. The summary network analysis diagram shall include:

- (1) Data collection activities;
- (2) Submittal and approval activities;
- (3) Preconstruction, construction and post construction activities; and
- (4) Other pertinent data.

1.7.3.2. The summary network analysis diagram shall be updated at thirty (30) day intervals, as significant changes occur, or as otherwise approved in writing by the Authorized Officer.

#### 1.7.4. Application for Notice to Proceed

1.7.4.1. Permittees may apply for a Notice to Proceed for only those Construction Segments for which the Preliminary Design has been approved in writing by the Authorized Officer or a waiver pursuant to Stipulation 1.7.2.2 has been issued in writing by the Authorized Officer.

1.7.4.2. Before applying for a Notice to Proceed for a Construction Segment, Permittees shall, in such manner as shall be acceptable to the Authorized Officer, by survey, locate and clearly mark on the ground the proposed centerline of the line pipe to be located in the Mapping Segment within which the Construction Segment is to be constructed and the location of all Related Facilities proposed to be constructed in the Mapping Segment.

1.7.4.3. Each application for a Notice to Proceed shall be supported by:

- (1) A Final Design.
- (2) All reports and results of environmental studies conducted or considered by Permittees.
- (3) All data necessary to demonstrate compliance with the terms and conditions of these Stipulations with respect to that particular Construction Segment.
- (4) A detailed network analysis diagram for the Construction Segment, including: Permittees' work schedules; consents, permits or authorizations required by State and Federal agencies and their interrelationships; design and review periods; data collection activities; and construction sequencing. The detailed network analysis diagram shall be updated as required to reflect current status of the project.

(5) A map or maps, prepared in such manner as shall be acceptable to the Authorized Officer, depicting the proposed location in the Mapping Segment within which the Construction Segment is to be constructed of: (1) the boundaries of all contiguous temporary use areas, and (2) all improvements, buried or aboveground, that are to be constructed within the Mapping Segment. The Authorized Officer shall not issue a Notice to Proceed with construction until he has approved all relevant locations on the ground and temporary boundary markers have been set by Permittees to the satisfaction of the Authorized Officer.

(6) Such other data as may be requested by the Authorized Officer either before submission of the application for a Notice to Proceed or at any time during the review period.

1.7.4.4. During review of an application for a Notice to Proceed, the relevant portion of the route of the Pipeline may be modified by the Authorized Officer, if, in his judgment, environmental conditions or new technological developments warrant the modifications. If, during construction, adverse physical conditions are encountered that were not known to exist, or that were known to exist but their significance was not fully appreciated when the Authorized Officer issued a Notice to Proceed for the portion of the Mapping Segment in which the physical conditions are encountered, the Authorized Officer may authorize deviations from the initially approved location of the Pipeline to another location along the same general route of the Pipeline at the point or points where the physical conditions are encountered, including adequate room for structurally sound transition. A deviation shall not be constructed without the prior written approval of the Authorized Officer and, if so approved, shall conform in all respects to the provisions of the approval.

1.7.4.5. The Authorized Officer shall review each application for a Notice to Proceed and all data submitted in connection therewith within ninety (90) days. Said ninety (90) day period shall begin from the later of the following dates:

(1) Date of receipt by the Authorized Officer of an application for a Notice to Proceed.

(2) Date of receipt by the Authorized Officer of the last submittal of additional data pursuant to this Stipulation.

1.7.4.6. If the Authorized Officer requires Permittees to submit additional data on one or more occasions, the review period shall begin from the date of receipt by the Authorized Officer of the last submittal

#### Stipulation 1.12 – Regulation of Public Access

1.12.1. During construction or termination activities, Permittees may regulate or prohibit public access to or upon any Access Road being used for such activity. At all other times, Permittees shall permit free and unrestricted public access to and upon Access Roads, except that with the written consent of the Authorized Officer, Permittees may regulate or prohibit public access and vehicular traffic on Access Roads as required to facilitate operations or to protect the public, wildlife and livestock from hazards associated with operation and maintenance of the Pipeline System. Permittees shall provide appropriate warnings, flagmen, barricades, and other safety measures when

Permittees are using Access Roads, or regulating or prohibiting public access to or upon Access Roads.

1.12.2. During construction of the Pipeline System, Permittees shall provide alternative routes for existing roads and trails as determined by the Authorized Officer whether or not these roads or trails are recorded.

1.12.3. Permittees shall make provisions for suitable permanent crossings for the public where the Right-of-Way or Access Roads cross existing roads, foot-trails, winter trails, or other rights-of-way.

1.12.4. After completion of construction of the Pipeline System, and with the concurrence of Permittee, the Authorized Officer may designate areas of the Right-of-Way to which the public shall have free and unrestricted access.

#### Stipulation 1.17 – Fire Prevention and Suppression

1.17.1 Permittees shall promptly notify the Authorized Officer and take all measures necessary or appropriate for the prevention and suppression of fires in accordance with 43 CFR 2801.1-5(d). Permittees shall comply with the instructions and directions of the Authorized Officer concerning the use, prevention and suppression of fires. Use of open fires in connection with construction of the Pipeline System is prohibited unless authorized in writing by the Authorized Officer.

#### Stipulation 1.18 – Surveillance and Maintenance

1.18.1 During the construction, operation, maintenance and termination of the Pipeline System, Permittees shall conduct a surveillance and maintenance program applicable to the subarctic and arctic environment. This program shall be designed to: (1) provide for public health and safety; (2) prevent damage to natural resources; (3) prevent erosion; and (4) maintain Pipeline System integrity.

1.18.2 Permittees shall have a communication system that ensures the transmission of information required for the safe operation of the Pipeline System.

1.18.3 Permittees shall maintain complete and up-to-date records on construction, operation, maintenance and termination activities performed in connection with the Pipeline System. Such records shall include surveillance data, leak and break records, necessary operation data, modification records and such other data as the Authorized Officer may require.

1.18.4 Permittees shall provide and maintain Access Roads and airstrips, the number and location of which shall be approved by the Authorized Officer, to ensure that Parties' maintenance crews and Federal and State representatives shall have continuing access to the Pipeline System.

#### Stipulation 1.20 – Health and Safety

1.20.1 Permittees shall take all measure necessary to protect the health and safety of all persons affected by their activities performed in connection with the construction, operation, maintenance or termination of the Pipeline System, and shall immediately

abate any health or safety hazards. Permittees shall immediately notify the Authorized Officer of all serious accidents which occur in connection with such activities.

#### Stipulation 1.21 – Conduct of Operations

1.21.1 Permittees shall perform all Pipeline System operations in a safe and workmanlike manner so as to ensure the safety and integrity of the Pipeline System, and shall at all times employ and maintain personnel and equipment sufficient for that purpose. Permittees shall immediately notify the Authorized Officer of any condition, problem, malfunction, or other occurrence which in any way threatens the integrity of the Pipeline System.

#### Stipulation 2.1 – Environmental Briefing

2.1.1 Prior to and during construction of the Pipeline System, Permittees shall provide for environmental and other pertinent briefings for construction and other personnel by such Federal employees as may be designated by the Authorized Officer. Permittees shall arrange the time, place and attendance for such briefings upon request by the Authorized Officer. Permittees shall bear all costs of such briefings other than salary, per diem, subsistence, and travel costs of Federal employees. In addition, Permittees shall separately arrange with the State of Alaska for such similar briefings as the State may desire.

#### Stipulation 2.2 – Pollution Control

##### 2.2.1. General

2.2.1.1. Permittees shall conduct all activities associated with the Pipeline System in a manner that will avoid or minimize degradation of air, land and water quality. In the construction, operation, maintenance and termination of the Pipeline System, Permittees shall perform their activities in accordance with applicable air and water quality standards, related facility siting standards, and related plans of implementation, including but not limited to standards adopted pursuant to the Clean Air Act, as amended, 42 U.S.C. § 1857 *et seq.*, and the Federal Water Pollution Control Act, as amended, 33 U.S.C. § 1321 *et seq.*

##### 2.2.2. Water and Land Pollution

2.2.2.1. Permittees shall comply with applicable "Water Quality Standards" of the State of Alaska as approved by the Environmental Protection Agency.

2.2.2.2. Mobile ground equipment shall not be operated in lakes, streams or rivers unless such operation is approved in writing by the Authorized Officer.

##### 2.2.3. Thermal Pollution

2.2.3.1 Permittees shall comply with the standards set for thermal pollution in the State of Alaska "Water Quality Standards," as approved by the Environmental Protection Agency.

##### 2.2.4. Air Pollution and Ice Fog

2.2.4.1. Permittees shall utilize and operate all facilities and devices used in connection with the Pipeline System so as to avoid or minimize air pollution and ice fog. Facilities and devices which cannot be prevented from producing ice fog shall be located so as not to interfere with airfields, communities or roads.

2.2.4.2. Emissions from equipment, installations and burning materials shall meet applicable Federal and State air quality standards.

2.2.5. Pesticides, Herbicides and other Chemicals

2.2.5.1. Permittees shall use only non-persistent and immobile types of pesticides, herbicides and other chemicals. Each chemical to be used and its application constraint shall be approved in writing by the Authorized Officer prior to use.

2.2.6. Sanitation and Waste Disposal

2.2.6.1. "Waste" means all discarded matter, including but not limited to human waste, trash, garbage, refuse, oil drums, petroleum products, ashes and equipment.

2.2.6.2. All waste generated in construction, operation, maintenance and termination of the Pipeline System shall be removed or otherwise disposed of in a manner acceptable to the Authorized Officer. All applicable standards and guidelines of the Alaska State Department of Environmental Conservation, the United States Public Health Service, the Environmental Protection Agency, and other Federal and State agencies shall be adhered to by Permittees. All incinerators shall meet the requirements of applicable Federal and State laws and regulations and shall be used with maximum precautions to prevent forest and tundra fires. After incineration, material not consumed in the incinerator shall be disposed of in a manner approved in writing by the Authorized Officer. Portable or permanent waste disposal systems to be used shall be approved in writing by, the Authorized Officer.

### Stipulation 2.3 – Buffer Strips

2.3.1. Public Interest Areas

2.3.1.1. No construction activity in connection with the Pipeline System shall be conducted within one-half (½) mile of any officially designated Federal, State or municipal park, wildlife refuge, research natural area, recreation area, recreation site, or any landmark, unless such activity is approved in writing by the Authorized Officer.

2.3.2. Vegetative Screen

2.3.2.1. Permittees shall not cut or remove any vegetative cover within a minimum five hundred (500) foot strip between State highways and material sites unless such cutting or removal is approved in writing by the Authorized Officer.

### Stipulation 2.4 – Erosion Control

2.4.1. General

2.4.1.1. Permittees shall perform all Pipeline System construction, operation, maintenance and termination activities so as to avoid or minimize disturbance to vegetation.

2.4.1.2. The design of the Pipeline System shall provide for the construction of control facilities that will avoid or minimize erosion.

2.4.1.3. The erosion control facilities shall be constructed to avoid induced and accelerated erosion and to lessen the possibility of forming new drainage channels resulting from Pipeline System activities. The facilities shall be designed and operations conducted in such a way as to avoid or minimize disturbance to the thermal regime.

2.4.2. Stabilization



2.4.2.1. Surface materials taken from disturbed areas shall be stockpiled and utilized during restoration unless otherwise approved in writing by the Authorized Officer. Stabilization practices, as determined by the needs for specific sites, shall include but shall not be limited to seeding, planting, mulching, and the placement of mat binders, soil binders, rock or gravel blankets, or structures.

2.4.2.2. All disturbed areas shall be left in a stabilized condition satisfactory to the Authorized Officer. Such satisfaction shall be stated in writing by the Authorized Officer.

2.4.3. Crossing of Streams, Rivers or Flood Plains.

2.4.3.1. Permittees shall prevent or minimize erosion at stream and river crossings and those parts of the Pipeline System within flood plains, as defined in Stipulation 3.6.

2.4.3.2. Temporary access over stream banks shall be made through use of fill ramps rather than by cutting through stream banks, unless otherwise approved in writing by the Authorized Officer. Permittees shall remove such ramps upon termination of seasonal or final use. Ramp materials shall be disposed of in a manner approved in writing by the Authorized Officer.

2.4.4. Seeding and Planting.

2.4.4.1. Seeding and planting of disturbed areas shall be conducted as soon as practicable and, if necessary, shall be repeated until vegetation is successful, unless otherwise approved in writing by the Authorized Officer. All other restoration shall be completed as soon as possible.

2.4.5. Excavated Material

2.4.5.1. Excavated material in excess of that required to backfill around any structure, including the pipe, shall be disposed of in a manner approved in writing by the Authorized Officer.

## Stipulation 2.5 – Fish and Wildlife Protection

2.5.1. Passage of Fish

2.5.1.1. Permittees shall provide for uninterrupted movement and safe passage of fish. Any artificial structure or any stream channel change that would cause a blockage to fish shall be provided with a fish passage structure or facility that meets all Federal and State requirements. The proposed design shall be submitted to the Authorized Officer in accordance with Stipulation 1.7.

2.5.1.2. Pump intakes shall be screened to prevent harm to fish.

2.5.1.3. Abandoned water diversion structures shall be plugged and stabilized to prevent trapping or stranding of fish.

2.5.1.4. If material sites are approved adjacent to or in certain lakes, rivers, or streams, the Authorized Officer may require Permittees to construct levees, berms or other suitable means to protect fish and fish passage and to prevent siltation of streams or lakes.

2.5.2. Fish Spawning Beds

2.5.2.1. "Fish Spawning Beds" means the areas where anadromous and resident fish deposit their eggs.

2.5.2.2. Permittees shall avoid channel changes in Fish Spawning Beds designated by the Authorized Officer; however, where channel changes cannot be avoided in such beds, new channels shall be constructed according to written standards supplied by the Authorized Officer.

2.5.2.3. Fish Spawning Beds shall be protected from sediment where soil material is expected to be suspended in water as a result of construction activities. Settling basins shall be constructed to intercept silt before it reaches streams or likes.

2.5.2.4. Permittees shall comply with any special requirements made by the Authorized Officer for a stream system in order to protect Fish Spawning Beds. Permittees shall repair all damage to Fish Spawning Beds caused by construction, operation, maintenance or termination of the Pipeline System.

#### 2.5.3. Zones of Restricted Activities

2.5.3.1. Permittees' activities in connection with the Pipeline System in key fish and wildlife areas may be restricted by the Authorized Officer during periods of fish and wildlife breeding, nesting, spawning, lambing or calving activity and during major migrations of fish and wildlife. The Authorized Officer shall give Permittees written notice of such restrictive action. From time to time, the Authorized Officer shall furnish Permittees a list of areas where such actions may be required, together with anticipated dates of restriction.

#### 2.5.4. Big Game Movements

2.5.4.1. Permittees shall construct and maintain the Pipeline, both buried and above ground sections, so as to assure free passage and movement of big game animals.

### Stipulation 2.6 – Material Sites

#### 2.6.1. Purchase of Materials

2.6.1.1. If Permittees require materials from the public lands, Permittees shall make application to purchase such materials in accordance with 43 CFR, Part 3610. Permittees shall submit a Mining plan in accordance with 43 CFR, Part 23. No materials may be removed by Permittees without the written approval of the Authorized Officer.

2.6.1.2. Insofar as possible, use of existing materials sites will be authorized in preference to new sites.

2.6.1.3. Gravel and other construction materials shall not be taken from stream beds, river beds, lake shores or other outlets of lakes, unless the taking is approved in writing by the Authorized Officer.

#### 2.6.2. Layout of Materials Sites

2.6.2.1. Materials site boundaries shall be shaped in such a manner as to blend with surrounding natural land patterns. Regardless of the layout of materials sites, primary emphasis shall be placed on prevention of soil erosion and damage to Vegetation.

### Stipulation 2.7 - Clearing

#### 2.7.1. Boundaries

2.7.1.1. Permittees shall identify approved clearing boundaries on the ground for each Construction Segment prior to beginning clearing operations. All timber and other vegetative material outside clearing boundaries and all blazed, painted or posted trees which are on or mark clearing boundaries are reserved from cutting and removal with the exception of danger trees or snags designated as such by the Authorized Officer.

#### 2.7.2. Timber

2.7.2.1. Prior to initiating clearing operations, Permittees shall notify the Authorized Officer of the amount of merchantable timber, if any, which will be cut, removed or

destroyed in the construction and maintenance of the Pipeline System, and shall pay the United States in advance of such construction or maintenance activity, such sum of money as the Authorized Officer determines to be the full stumpage value of the timber to be cut, removed or destroyed.

2.7.2.2. All trees, snags, and other woody material cut in connection with clearing operations shall be cut so that the resulting stumps shall not be higher than six (6) inches measured from the ground on the uphill side.

2.7.2.3. All trees, snags and other woody material cut in connection with clearing operations shall be felled into the area within the clearing boundaries and away from water courses.

2.7.2.4. Hand clearing shall be used in areas where the Authorized Officer determines that use of heavy equipment would be detrimental to existing conditions.

2.7.2.5. All debris (resulting from clearing operations and construction that may block stream flow, delay fish passage, contribute to flood damage, or result in stream bed scour or erosion) shall be removed.

2.7.2.6. Logs shall not be skidded or yarded across any stream without the written approval of the Authorized Officer.

2.7.2.7. No log landing shall be located within three-hundred (300) feet of any water course.

2.7.2.8. All slash shall be disposed of in construction pads or Access Roads unless otherwise directed in writing by the Authorized Officer.

#### Stipulation 2.8 – Disturbance of Natural Water

2.8.1. All activities of Permittees in connection with the Pipeline System that may create new lakes, drain existing lakes, significantly divert natural drainage, permanently alter stream hydraulics, or disturb significant areas of stream beds are prohibited unless such activities along with necessary mitigation measures are approved in writing by the Authorized Officer.

#### Stipulation 2.9 – Off Right-of-Way Traffic

2.9.1. Permittees shall not operate mobile ground equipment off the Right-of-Way, Access Roads, State highways, or authorized areas, unless approved in writing by the Authorized Officer or when necessary to prevent harm to any Person.

#### Stipulation 2.12 - Restoration

2.12.1. Areas disturbed by Permittees shall be restored by Permittees to the satisfaction of the Authorized Officer as stated in writing.

2.12.2. All cut and fill slopes shall be left in a stable condition.

2.12.3. Materials from Access Roads, haul ramps, berms, dikes, and other earthen structures shall be disposed of as directed in writing by the Authorized Officer.

2.12.4. Vegetation, overburden and other materials removed during clearing operations shall be disposed of by Permittees in a manner approved in writing by the Authorized Officer.

2.12.5. Upon completion of restoration, Permittees shall immediately remove all equipment and supplies from the site.

#### Stipulation 2.14 – Contingency Plans

2.14.1 It is the policy of the Department of the Interior that there should be no discharge of Oil or other pollutant into or upon lands or waters. Permittees must therefore recognize their prime responsibility for the protection of the public and environment from the effects of spillage.

2.14.2 Permittees shall submit their contingency plans to the Authorized Officer at least one hundred and eighty (180) days prior to scheduled start-up. The plans shall conform to the Stipulation and the National Oil Hazardous Substances Pollution Contingency Plan, 36 F.R. 16215, August 20, 1971, and shall: (1) include provisions for Oil Spill Control; (2) specify that the action agencies responsible for contingency plans in Alaska shall be among the first to be notified in the event of any Pipeline System failure resulting in an Oil spill; (3) provide for immediate corrective action including Oil Spill Control and restoration of affected resource; (4) provide that the Authorized Officer shall approve any materials or devices used for Oil Spill Control and shall approve any disposal sites or techniques selected to handle oily matter; and (5) include separate and specific techniques and schedules for cleanup of Oil spills on land, lakes, rivers and streams, sea, and estuaries.

#### Stipulation 3.2 – Pipeline System Standards

##### 3.2.1. General Standards

3.2.1.1. All design, material and construction, operation, maintenance and termination practices employed in the Pipeline System shall be in accordance with safe and proven engineering practice and shall meet or exceed the following standards:

(1) U.S.A. Standard Code for Pressure Piping, ANSI B 31.4, "Liquid Petroleum Transportation Piping System."

(2) Department of Transportation Regulations, 49 CFR, Part 195, "Transportation of Liquids by Pipeline."

(3) ASME Gas Piping Standard Committee, 15 Dec. 1970: "Guide for Gas Transmission and Distribution Piping System."

(4) Department of Transportation Regulations, 49 CFR, Part 192, "Transportation of Natural and Other Gas by Pipelines: Minimum Federal Safety Standards."

3.2.1.2. Requirements in addition to those set forth in the above minimum standards may be imposed by the Authorized Officer as necessary to reflect the impact of subarctic and arctic environments. If any standard contains a provision which is inconsistent with a provision in another standard, the more stringent shall apply.

##### 3.2.2. Special Standards

3.2.2.1. The design shall also provide for remotely controlled shutoff valves at each pump station; remotely controlled mainline block valves (intended to control spills); and additional valves located with the best judgment regarding wildlife habitat, fish habitat, and potentially hazardous areas.

3.2.2.2. All practicable means shall be utilized to minimize injury to the ground organic layer.

3.2.2.3. Radiographic inspection of all main line girth welds and pressure testing of the Pipeline shall be conducted by Permittees prior to placing the system in operation.

3.2.2.4. Permittees shall provide for continuous inspection of Pipeline System construction to ensure compliance with the design specifications and these Stipulations.

3.2.2.5. Welder qualification tests shall be by destructive means, except that operators of automatic welding equipment for girth welding of tank seams shall be tested by radiography in accordance with ASME Boiler and Pressure Vessel Code, Section 9, Subsection Q-21 (b).

3.2.2.6. Lightning protection shall conform to the requirements of ANSI C5.1-1969, "Lightning Protection Code-1968.17

### 3.2.3. Standards for Access Roads

3.2.3.1. Design, materials and construction practices employed for Access Roads shall be in accordance with safe and proven engineering practice and in accordance with the principles of construction for secondary roads for the subarctic and arctic environments.

3.2.3.2. Permittees shall submit a layout of each proposed Access Road for approval by the Authorized Officer in accordance with Stipulation 1.7.

3.2.3.3. Access Roads shall be constructed to widths suitable for safe operation of equipment at the travel speeds proposed by Permittees.

3.2.3.4. The maximum allowable grade shall be 12 percent unless otherwise approved in writing by the Authorized Officer.

## Stipulation 3.6 – Stream and Flood Plain Crossings and Erosion

### 3.6.1. General

3.6.1.1. For each region through which the Pipeline passes, the Pipeline shall be designed to withstand or accommodate the effects (including runoff, stream and flood plain erosion, meander cutoffs, lateral migration, ice-jams, and icings) of those meteorologic, hydrologic (including surface and subsurface) and hydraulic conditions considered reasonably possible for the region. The following standards shall apply to such Pipeline design:

3.6.1.1.1. For stream crossings and portions of the Pipeline within the flood plain.

3.6.1.1.1.1. The Pipeline shall cross streams underground unless a different means of crossing is approved in writing by the Authorized Officer.

3.6.1.1.1.2. The design flood shall be based on the concept of the "Standard Project Flood" as defined in Corps of Engineers Bulletin 52-8, Part 1.

3.6.1.1.1.3. The depth of channel scour shall be established by appropriate field investigations and theoretical calculations using those combinations of water velocity and depth that yield the maximum value. At the point of maximum scour, the cover over the pipe shall be at least twenty (20)

3.6.1.1.1.4. For overhead crossings comparable analysis shall be made to ensure that support strictures are adequately protected from the effects of scour, channel migration, undercutting, ice forces and degradation of permafrost.

3.6.1.1.1.5. In flood plains, appropriate construction procedures shall be used wherever there is potential channelization along the pipe.

3.6.1.1.1.6. The pipe trench excavation shall stop an adequate distance from the water crossing to leave a protective plug (unexcavated material) at each bank. These plugs shall be left in place until the stream bed excavation is complete and the pipe laying operation is begun. The plugs shall not be completely removed until absolutely necessary. The trench shall be backfilled with stable material as soon as the pipe is laid.

#### 3.6.1.2. Culverts and Bridges.

3.6.1.2.1. Culverts and bridges necessary for maintenance of the Pipeline shall be designed to accommodate a fifty (50) -year flood in accordance with criteria established by the American Association of State Highway Officials and the Federal Highway Administration and endorsed by the State of Alaska Department of Highways.

#### 3.6.2. Erosion

3.6.2.1. Where necessary because of outfall erosion, stilling basins shall be constructed at the outflow end of culverts. To prevent erosion the pool sides shall be stabilized by appropriate methods; eg., by the use of riprap.

3.6.2.2. Slopes of cuts through stream banks shall be designed and constructed to minimize erosion and prevent slides.

3.6.2.3. Erosion control procedures shall accommodate and be based on the runoff produced by the maximum rainfall rate and snow melt rate combination reasonably characteristic of the region. The procedures shall also accommodate effects that result from thawing produced by flowing or pond water on permafrost terrain.

### Stipulation 3.9 – Construction and Operation

3.9.1. All construction, operation, maintenance, and termination activities in connection with the Pipeline System shall be conducted so as to avoid or minimize thermal and other environmental changes and to provide maximum protection to fish and wildlife and their habitat, and people. All working platforms, pads, fills and other surface modifications shall be planned and executed in such a way that any resulting degradation of permafrost will not jeopardize the Pipeline foundations.

3.9.2. Acceptable plans, procedures and quality controls that ensure compliance with Stipulation 3.9.1 shall be submitted in accordance with Stipulation 1.7.

### Stipulation 3.10 – Pipeline Corrosion

3.10.1. Permittees shall provide detailed plans for corrosion resistant design and methods for early detection of corrosion. These shall include: (1) pipe material and welding techniques to be used and information on their particular suitability for the environment involved; (2) details on the external pipe protection to be provided (coating, wrapping, etc.), including information on variation of the coating process to cope with variations in environmental factors along the Pipeline route; (3) plans for cathodic protection including details of impressed ground sources and controls to ensure continuous maintenance of adequate protection over the entire surface of the pipe; (4) details of plans for monitoring cathodic protection current including spacing of current monitors; (5) provision for periodic intensive surveys of trouble spots, regular preventive maintenance surveys and special provisions for abnormal potential patterns resulting from the crossing of the Pipeline by other pipelines or cables; and (6) information on precautions to be taken to

prevent internal corrosion of the Pipeline. Permittees shall also provide for periodic internal pitting surveys by electromagnetic or other means.